General

Guideline Title

Clinical practice guideline: acute otitis externa.

Bibliographic Source(s)

Rosenfeld RM, Schwartz SR, Cannon CR, Roland PS, Simon GR, Kumar KA, Huang WW, Haskell HW, Robertson PJ. Clinical practice guideline: acute otitis externa. Otolaryngol Head Neck Surg. 2014 Feb;150(1 Suppl):S1-S24. [165 references] PubMed

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: Rosenfeld RM, Brown L, Cannon CR, Dolor RJ, Ganiats TG, Hannley M, Kokemueller P, Marcy SM, Roland PS, Shiffman RN, Stinnett SS, Witsell DL, American Academy of Otolaryngology--Head and Neck Surgery Foundation. Clinical practice guideline: acute otitis externa. Otolaryngol Head Neck Surg. 2006 Apr;134(4 Suppl):S4-23. [137 references]

This guideline meets NGC's 2013 (revised) inclusion criteria.

Regulatory Alert

FDA Warning/Regulatory Alert

Note from the National Guideline Clearinghouse: This guideline references a drug(s) for which important revised regulatory and/or warning information has been released.

- May 12, 2016 – Fluoroquinolone Antibacterial Drugs : The U.S. Food and Drug Administration (FDA) is advising that the serious side effects associated with fluoroquinolone antibacterial drugs generally outweigh the benefits for patients with sinusitis, bronchitis, and uncomplicated urinary tract infections who have other treatment options. For patients with these conditions, fluoroquinolones should be reserved for those who do not have alternative treatment options.

Recommendations

Major Recommendations

The evidence grades (A-D, X) and evidence-based statements (Strong Recommendation, Recommendation, Option, and No Recommendation) are defined at the end of the "Major Recommendations" field.

Statement 1. Differential Diagnosis

Clinicians should distinguish diffuse acute otitis externa (AOE) from other causes of otalgia, otorrhea, and inflammation of the external ear canal.

Recommendation based on observational studies with a preponderance of benefit over risk.

Action Statement Profile

- Aggregate evidence quality: Grade C, observational studies, and Grade D, reasoning from first principles
- Level of confidence in evidence: High
- Benefit: Improved diagnostic accuracy
- Risks, harms, costs: None in following the recommended action
- Benefits-harm assessment: Preponderance of benefit over harm
- Value judgments: Importance of accurate diagnosis
- Intentional vagueness: None
- Role of patient preferences: None, regarding the need for a proper diagnosis
- Exceptions: None
- Policy level: Recommendation
- Differences of opinion: None

Statement 2. Modifying Factors

Clinicians should assess the patient with diffuse AOE for factors that modify management (nonintact tympanic membrane, tympanostomy tube, diabetes, immunocompromised state, prior radiotherapy).

Recommendation based on observational studies with a preponderance of benefit over risk.

Action Statement Profile

- Aggregate evidence quality: Grade C, observational studies
- Level of confidence in evidence: High
- Benefit: Optimizing treatment of AOE through appropriate diagnosis and recognition of factors or comorbid conditions that might alter management
- Risks, harms, costs: None from following the recommendation; additional expense of diagnostic tests or imaging studies to identify modifying factors
- Benefits-harm assessment: Preponderance of benefits over harm
- Value judgments: Avoiding complications that could potentially be prevented by modifying the management approach based on the specific factors identified
- Intentional vagueness: None
- Role of patient preferences: None
- Exceptions: None
- Policy level: Recommendation
- Differences of opinion: None

Statement 3. Pain Management

The clinician should assess patients with AOE for pain and recommend analgesic treatment based on the severity of pain.

Strong recommendation based on well-designed randomized trials with a preponderance of benefit over harm.

Action Statement Profile

- Aggregate evidence quality: Grade B, 1 randomized controlled trial limited to AOE; consistent, well-designed randomized trials of analgesics for pain relief in general
- Level of confidence in evidence: High
- Benefit: Increase patient satisfaction, allow faster return to normal activities
- Risks, harms, costs: Adverse effects of analgesics; direct cost of medication
- Benefits-harms assessment: Preponderance of benefit over harm
- Value judgments: Consensus among guideline development group that the severity of pain associated with AOE is under-recognized;

preeminent role of pain relief as an outcome when managing AOE
- Intentional vagueness: None
- Role of patient preferences: Moderate, choice of analgesic and degree of pain tolerance
- Exceptions: None
- Policy level: Strong recommendation
- Differences of opinion: None

Statement 4. Systemic Antimicrobials

Clinicians should not prescribe systemic antimicrobials as initial therapy for diffuse, uncomplicated AOE unless there is extension outside the ear canal or the presence of specific host factors that would indicate a need for systemic therapy.

Strong recommendation based on randomized controlled trials with minor limitations and a preponderance of benefit over harm.

Action Statement Profile

- Aggregate evidence quality: Grade B, randomized controlled trials with minor limitations; no direct comparisons of topical versus systemic therapy
- Level of confidence in evidence: High
- Benefit: Avoid side effects from ineffective therapy, reduce antibiotic resistance by avoiding systemic antibiotics
- Risks, harms, costs: None
- Benefits-harms assessment: Preponderance of benefit over harm
- Value judgments: Desire to decrease the use of ineffective treatments, societal benefit from avoiding the development of antibiotic resistance
- Intentional vagueness: None
- Role of patient preferences: None
- Exceptions: None
- Policy level: Strong recommendation
- Differences of opinion: None

Statement 5. Topical Therapy

Clinicians should prescribe topical preparations for initial therapy of diffuse, uncomplicated AOE.

Recommendation based on randomized trials with some heterogeneity and a preponderance of benefit over harm.

Action Statement Profile

- Aggregate evidence quality: Grade B, meta-analyses of randomized controlled trials with significant limitations and heterogeneity
- Level of confidence in evidence: High for the efficacy of topical therapy as initial management, but low regarding comparative benefits of different classes of drugs or combinations of ototopical drugs
- Benefit: Effective therapy, low incidence of adverse events
- Risks, harms, costs: Direct cost of medication (varies greatly depending on drug class and selection), risk of secondary fungal infection (otomycosis) with prolonged use of topical antibiotics
- Benefits-harms assessment: Preponderance of benefit over harm
- Value judgments: randomized controlled trial results from largely specialty settings may not be generalizable to patients seen in primary care settings, where the ability to perform effective aural toilet may be limited
- Intentional vagueness: No specific recommendations regarding the choice of ototopical agent
- Role of patient preferences: Substantial role for patient preference in choice of topical therapeutic agent
- Exceptions: Patients with a nonintact tympanic membrane (see Statement 7 below on "Nonintact Tympanic Membrane")
- Policy level: Recommendation
- Differences of opinion: None

Statement 6. Drug Delivery

The clinician should enhance the delivery of topical drops by informing the patient how to administer topical drops and by performing aural toilet, placing a wick, or both, when the ear canal is obstructed.

Recommendation based on observational studies with a preponderance of benefit over harm.

Action Statement Profile

- Aggregate evidence quality: Grade C, observational studies and D, first principles
- Level of confidence in evidence: High
- Benefit: Improved adherence to therapy and drug delivery
- Risks, harms, costs: Pain and local trauma caused by inappropriate aural toilet or wick insertion; direct cost of wick (inexpensive)
- Benefits-harms assessment: Preponderance of benefit over harm
- Value judgments: Despite an absence of randomized controlled trials demonstrating a benefit of aural toilet, the guideline development group agreed that cleaning was appropriate, when necessary, to improve penetration of the drops into the ear canal
- Intentional vagueness: None
- Role of patient preferences: Choice of self-administering drops versus using assistant
- Exceptions: None
- Policy level: Recommendation
- Differences of opinion: None

Statement 7. Nonintact Tympanic Membrane

When the patient has a known or suspected perforation of the tympanic membrane, including a tympanostomy tube, the clinician should prescribe a non-ototoxic topical preparation.

Recommendation based on reasoning from first principles and on exceptional circumstances in which validating studies cannot be performed and there is a preponderance of benefit over harm.

Action Statement Profile

- Aggregate evidence quality: Grade D, reasoning from first principles, and Grade X, exceptional situations in which validating studies cannot be performed
- Level of confidence in evidence: Moderate, because of extrapolation of data from animal studies and little direct evidence in patients with AOE
- Benefit: Reduce the possibility of hearing loss and balance disturbance
- Risk, harm, cost: Eardrops without ototoxicity may be more costly
- Benefits-harms assessment: Preponderance of benefit over harm
- Value judgments: Importance of avoiding iatrogenic hearing loss from a potentially ototoxic topical preparation when non-ototoxic alternatives are available; placing safety above direct cost
- Intentional vagueness: None
- Role of patient preferences: None
- Exceptions: None
- Policy level: Recommendation
- Differences of opinion: None

Statement 8. Outcome Assessment

The clinician should reassess the patient who fails to respond to the initial therapeutic option within 48 to 72 hours to confirm the diagnosis of diffuse AOE and to exclude other causes of illness.

Recommendation based on observational studies and a preponderance of benefit over harm.

Action Statement Profile

- Aggregate evidence quality: Grade C, outcomes from individual treatment arms of randomized controlled trials of efficacy of topical therapy for AOE
- Level of confidence in evidence: Medium, because most randomized trials have been conducted in specialist settings and the generalizability to primary care settings is unknown
- Benefit: Identify misdiagnosis and potential complications from delayed management; reduce pain
- Risks, harms, costs: Cost of reevaluation by clinician
- Benefits-harms assessment: Preponderance of benefit over harm
- Value judgments: None
- Intentional vagueness: Time frame of 48 to 72 hours is specified since there are no data to substantiate a more precise estimate of time to

improvement
- Role of patient preferences: None
- Exceptions: None
- Policy level: Recommendation
- Differences of opinion: None

Definitions:

Evidence Quality for Grades of Evidence

Grade	Evidence Quality for Diagnosis	Evidence Quality for Treatment and Harm
A	Systematic review of cross-sectional studies with consistently applied reference standard and blinding	Well-designed randomized controlled trials performed on a population similar to the guideline's target population
B	Individual cross-sectional studies with consistently applied reference standard and blinding	Randomized controlled trials; overwhelmingly consistent evidence from observational studies
C	Nonconsecutive studies, case control studies, or studies with poor, nonindependent, or inconsistently applied reference standards	Observational studies (case control and cohort design)
D	Mechanism-based reasoning or case reports	
X	Exceptional situations where validating studies cannot be performed and there is a clear preponderance of benefit over harm	

Guideline Definitions for Evidence-Based Statements

Statement	Definition	Implication
Strong Recommendation	A strong recommendation means the benefits of the recommended approach clearly exceed the harms (or that the harms clearly exceed the benefits in the case of a strong negative recommendation) and that the quality of the supporting evidence is excellent (grade A or B).* In some clearly identified circumstances, strong recommendations may be made based on lesser evidence when high-quality evidence is impossible to obtain and the anticipated benefits strongly outweigh the harms.	Clinicians should follow a strong recommendation unless a clear and compelling rationale for an alternative approach is present.
Recommendation	A recommendation means the benefits exceed the harms (or that the harms exceed the benefits in the case of a negative recommendation), but the quality of evidence is not as strong (grade B or C).* In some clearly identified circumstances, recommendations may be made based on lesser evidence when high-quality evidence is impossible to obtain and the anticipated benefits outweigh the harms.	Clinicians should also generally follow a recommendation but should remain alert to new information and sensitive to patient preferences.
Option	An option means that either the quality of evidence that exists is suspect (grade D)* or that well-done studies (grade A, B, or C)* show little clear advantage to one approach versus another.	Clinicians should be flexible in their decision making regarding appropriate practice, although they may set bounds on alternatives; patient preference should have a substantial influencing role.
No Recommendation	No recommendation means there is both a lack of pertinent evidence (grade D)* and an unclear balance between benefits and harms.	Clinicians should feel little constraint in their decision making and be alert to new published evidence that clarifies the balance of benefit versus harm; patient preference should have a substantial influencing role.

*See the "Rating Scheme for the Strength of the Evidence" field for definitions of evidence grades.

Clinical Algorithm(s)

An algorithm titled "Flow Chart for Managing Acute Otitis Externa" is provided in the original guideline document.

Scope

Disease/Condition(s)

Acute otitis externa (AOE)

Note: AOE is defined as diffuse inflammation of the external ear canal, which may also involve the pinna or tympanic membrane.

Guideline Category

Diagnosis

Evaluation

Management

Treatment

Clinical Specialty

Emergency Medicine

Family Practice

Internal Medicine

Otolaryngology

Pediatrics

Intended Users

Advanced Practice Nurses

Nurses

Physician Assistants

Physicians

Guideline Objective(s)

- To update an earlier clinical practice guideline on acute otitis externa (AOE) published in 2006 by the American Academy of Otolaryngology—Head and Neck Surgery Foundation (AAO-HNSF)
- To promote appropriate use of oral and topical antimicrobials for AOE and to highlight the need for adequate pain relief
- To provide evidence-based recommendations to manage AOE

Target Population

Patients aged 2 years or older with diffuse acute otitis externa (AOE)

Note: This guideline does not apply to children younger than 2 years or to patients of any age with chronic or malignant (progressive necrotizing) otitis externa.

Interventions and Practices Considered

Diagnosis/Evaluation

1. Differential diagnosis
2. Assessment for modifying factors (nonintact tympanic membrane, tympanostomy tube, diabetes, immunocompromised state, prior radiotherapy)

Treatment/Management

1. Pain management
2. Systemic antimicrobials (only if there is extension outside the ear canal or the presence of specific host factors)
3. Topical therapy
4. Patient information on drug delivery
5. Use of a non-ototoxic topical preparation for patients with a nonintact tympanic membrane
6. Outcome assessment

Major Outcomes Considered

- Clinical resolution of acute otitis externa (AOE)
- Minimized use of ineffective treatments
- Eradication of pathogens
- Minimized recurrence, cost, complications, and adverse events
- Quality of life
- Patient satisfaction
- Continued hearing aid use

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

The original MEDLINE search was updated from July 2005 to October 2012 on PubMed using "otitis externa" (Medical Subject Headings [MeSH] term) and "swimmer's ear." The English-language search, which was supplemented by manual cross-checks of bibliographies from systematic reviews, identified 6 clinical practice guidelines, 4 systematic reviews, and 52 randomized controlled trials (RCTs). After assessing quality and relevance, the guideline developers retained none of the guidelines, 2 of the systematic reviews, and 12 RCTs.

Number of Source Documents

- 2 systematic reviews
- 12 randomized controlled trials (RCTs)

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Evidence Quality for Grades of Evidence

Grade	Evidence Quality for Diagnosis	Evidence Quality for Treatment and Harm
A	Systematic review of cross-sectional studies with consistently applied reference standard and blinding	Well-designed randomized controlled trials performed on a population similar to the guideline's target population
B	Individual cross-sectional studies with consistently applied reference standard and blinding	Randomized controlled trials; overwhelmingly consistent evidence from observational studies
C	Nonconsecutive studies, case control studies, or studies with poor, nonindependent, or inconsistently applied reference standards	Observational studies (case control and cohort design)
D	Mechanism-based reasoning or case reports	
X	Exceptional situations where validating studies cannot be performed and there is a clear preponderance of benefit over harm	

Methods Used to Analyze the Evidence

Review of Published Meta-Analyses

Systematic Review with Evidence Tables

Description of the Methods Used to Analyze the Evidence

The evidence-based approach to guideline development requires the evidence supporting a policy be identified, appraised, and summarized and that an explicit link between evidence and statements be defined. Evidence-based statements reflect both the quality of evidence and the balance of benefit and harm that is anticipated when the statement is followed. The definitions for evidence-based statements are listed the "Rating Scheme for the Strength of the Evidence" and the "Rating Scheme for the Strength of the Recommendations" fields. As much of the guideline dealt with evidence relating to diagnostic tests, the definitions for Evidence Quality for Grades of Evidence (see the "Rating Scheme for the Strength of the Evidence" field) was adapted to include current recommendations from the Oxford Centre for Evidence-Based Medicine.

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

In developing this update of the evidence-based clinical practice guideline on managing acute otitis externa (AOE), the American Academy of Otolaryngology—Head and Neck Surgery Foundation (AAO-HNSF) assembled a working group representing the disciplines of otolaryngology–head and neck surgery, pediatrics, infectious disease, family medicine, dermatology, and a consumer advocate. The panel followed the methodology for updating guidelines detailed in the AAO-HNSF's guideline development manual.

A systematic review had been conducted to support initial guideline development, but an update was deemed unnecessary because of only limited new evidence that was incorporated into the newer systematic reviews identified. An executive summary of the existing guideline was then sent to a panel of reviewers. They were asked to assess the statements in the original guideline and recommend if they should be kept as is, amended, or removed based on relevancy, omissions, or controversies that the guideline spurred and any new literature or treatments that might affect the guideline recommendations.

The working group then had one conference call and one face-to-face meeting during which these comments and the literature search were reviewed for each action statement. The panel then decided to leave the statement unaltered, change slightly, or rewrite the statement based on the impact of the literature search and the reviewer's comments. The supporting text was then edited to explain any changes from the original action statement and recommendation level.

The evidence profile for each statement was then converted into an action statement profile, which was moved up in the text to immediately follow

the action statement. Statements about the level of confidence in the evidence, any intentional vagueness included in the action statement, and any exclusions to whom the action statement does not apply were added to the action statement profile. These additions reflect the current methodology for guideline development by the AAO-HNSF and conform to the Institute of Medicine's standards for developing trustworthy guidelines.

The updated guideline then underwent Guideline Implementability Appraisal, to appraise adherence to methodologic standards, to improve the clarity of recommendations, and to predict potential obstacles to implementation.

Rating Scheme for the Strength of the Recommendations

Guideline Definitions for Evidence-Based Statements

Statement	Definition	Implication
Strong Recommendation	A strong recommendation means the benefits of the recommended approach clearly exceed the harms (or that the harms clearly exceed the benefits in the case of a strong negative recommendation) and that the quality of the supporting evidence is excellent (grade A or B).* In some clearly identified circumstances, strong recommendations may be made based on lesser evidence when high-quality evidence is impossible to obtain and the anticipated benefits strongly outweigh the harms.	Clinicians should follow a strong recommendation unless a clear and compelling rationale for an alternative approach is present.
Recommendation	A recommendation means the benefits exceed the harms (or that the harms exceed the benefits in the case of a negative recommendation), but the quality of evidence is not as strong (grade B or C).* In some clearly identified circumstances, recommendations may be made based on lesser evidence when high-quality evidence is impossible to obtain and the anticipated benefits outweigh the harms.	Clinicians should also generally follow a recommendation but should remain alert to new information and sensitive to patient preferences.
Option	An option means that either the quality of evidence that exists is suspect (grade D)* or that well-done studies (grade A, B, or C)* show little clear advantage to one approach versus another.	Clinicians should be flexible in their decision making regarding appropriate practice, although they may set bounds on alternatives; patient preference should have a substantial influencing role.
No Recommendation	No recommendation means there is both a lack of pertinent evidence (grade D)* and an unclear balance between benefits and harms.	Clinicians should feel little constraint in their decision making and be alert to new published evidence that clarifies the balance of benefit versus harm; patient preference should have a substantial influencing role.

*See the "Rating Scheme for the Strength of the Evidence" field for definitions of evidence grades.

Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

External Peer Review

Internal Peer Review

Description of Method of Guideline Validation

The final draft practice guideline underwent extensive external peer review. Comments were compiled and reviewed by the group chairperson.

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The recommendations contained in the guideline are based on the best available published data through October 2012. Where data were lacking, a combination of clinical experience and expert consensus was used.

The type of supporting evidence is identified and graded for each recommendation (see the "Major Recommendations" field).

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

By focusing on opportunities for quality improvement, the guideline should improve diagnostic accuracy, facilitate prompt intervention, decrease inappropriate variations in management, reduce unnecessary tests and imaging procedures, and improve outcomes and satisfaction for affected patients.

For benefits of specific interventions considered in the guideline, see the "Major Recommendations" field.

Potential Harms

- Adverse effects of analgesics for pain relief
- Risk of secondary fungal infection (otomycosis) with prolonged use of topical antibiotics
- Pain and local trauma caused by inappropriate aural toilet or wick insertion
- Only a few studies on topical antimicrobial and steroid preparations report detailed information on adverse events, showing an overall low incidence and comparable rates among treatment groups. The most common problems are pruritus (about 5% to 7%) and site reaction (4% to 5%); other events with an incidence less than 2% include rash, discomfort, otalgia, dizziness, vertigo, superinfection, and reduced hearing.
- Contact dermatitis is a potential sequela of topical antimicrobial or steroid therapy but is rare after a single course of therapy for diffuse acute otitis externa (AOE).
- Orally administered antibiotics have significant adverse effects that include rashes, vomiting, diarrhea, allergic reactions, altered nasopharyngeal flora, and development of bacterial resistance. Societal consequences include direct transmission of resistant bacterial pathogens in homes and child care centers.

Contraindications

Contraindications

Topical antibiotic therapy is contraindicated in managing otomycosis because it is ineffective and may promote further fungal overgrowth.

Qualifying Statements

Qualifying Statements

- Guidelines are not intended to supersede professional judgment; rather, they may be viewed as a relative constraint on individual clinician discretion in a particular clinical circumstance. Less frequent variation in practice is expected for a "strong recommendation" than might be expected with a "recommendation." "Options" offer the most opportunity for practice variability. Clinicians should always act and decide in a way that they believe will best serve their patients' interests and needs, regardless of guideline recommendations. They must also operate within their scope of practice and according to their training. Guidelines represent the best judgment of a team of experienced clinicians and

methodologists addressing the scientific evidence for a particular topic.

- Making recommendations about health practices involves value judgments on the desirability of various outcomes associated with management options. Values applied by the guideline panel sought to minimize harm and diminish unnecessary and inappropriate therapy. A major goal of the panel was to be transparent and explicit about how values were applied and to document the process.
- This clinical practice guideline is provided for information and education purposes only. It is not intended as a sole source of guidance in managing patients with acute otitis externa (AOE). Rather, it is designed to assist clinicians by providing an evidence-based framework for decision-making strategies. This guideline is not intended to replace clinical judgment or establish a protocol for all individuals with this condition and may not provide the only appropriate approach to diagnosis and management. As medical knowledge expands and technology advances, clinical indicators and guidelines are promoted as conditional and provisional proposals of what is recommended under specific conditions, but they are not absolute. Guidelines are not mandates; these do not and should not purport to be a legal standard of care. The responsible physician, in light of all the circumstances presented by the individual patient, must determine the appropriate treatment. Adherence to these guidelines will not ensure successful patient outcomes in every situation. The American Academy of Otolaryngology—Head and Neck Surgery Foundation (AAO-HNSF) emphasizes that these clinical guidelines should not be deemed inclusive of all proper treatment decisions or methods of care nor exclusive of other treatment decisions or methods of care reasonably directed to obtaining the same results.

Implementation of the Guideline

Description of Implementation Strategy

Implementation Considerations

The complete guideline is published as a supplement to *Otolaryngology—Head and Neck Surgery* to facilitate reference and distribution. A full-text version of the guideline will also be accessible free of charge at the www.entnet.org, the American Academy of Otolaryngology—Head and Neck Surgery Foundation (AAO-HNSF) Web site. A podcast discussing the updated guideline and its key action statements will also be made available. The guideline will be presented to members at AAO-HNSF Annual Meeting & OTO EXPO as a miniseminar following publication. Existing brochures and publications by the AAO-HNSF will be updated to reflect the guideline recommendations.

Anticipated barriers to applying the recommendations in the guideline include (1) difficulty of changing ingrained clinician habits toward prescribing ineffective systemic therapy for acute otitis externa (AOE), (2) inability or unwillingness of some clinicians to perform aural toilet or insert a wick into the ear canal, and (3) cost of some topical medications, especially the quinolone products recommended for use with a nonintact tympanic membrane. The first two can be addressed with educational events and workshops at continuing medical education events. The issue of cost should become less problematic in the next few years as additional generic versions of the quinolone otic drops become available. For example, subsequent to the first publication of this guideline in 2006, a generic version of ofloxacin otic solution has become available at reasonable cost.

The impact of the guideline on clinical practice will be assessed by monitoring physician performance on the AOE quality measures included within the Centers for Medicare & Medicaid Services (CMS) Physician Quality Reporting System (PQRS). The AOE quality measures were developed by the American Medical Association's convened Physician Consortium for Performance Improvement (PCPI) in conjunction with the AAO-HNSF; two are available for PQRS reporting in 2013. The two measures assess the prescribing of systemic and topical antimicrobials. In addition, the AAO-HNSF will continue to promote adherence to the guideline's recommendations through its quality improvement activities. This includes participation in the American Board of Internal Medicine (ABIM) Foundation's Choosing Wisely® campaign. The AAO-HNSF's first list of 5 things physicians and patients should question included an item to not prescribe systemic antimicrobials for diffuse, uncomplicated AOE (see Statement 4 in the "Major Recommendations" field).

Implementation Tools

Clinical Algorithm

Patient Resources

Resources

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Getting Better

IOM Domain

Effectiveness

Identifying Information and Availability

Bibliographic Source(s)

Rosenfeld RM, Schwartz SR, Cannon CR, Roland PS, Simon GR, Kumar KA, Huang WW, Haskell HW, Robertson PJ. Clinical practice guideline: acute otitis externa. Otolaryngol Head Neck Surg. 2014 Feb;150(1 Suppl):S1-S24. [165 references] PubMed

Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2006 Apr (revised 2014 Feb)

Guideline Developer(s)

American Academy of Otolaryngology - Head and Neck Surgery Foundation - Medical Specialty Society

Source(s) of Funding

American Academy of Otolaryngology—Head and Neck Surgery Foundation

Guideline Committee

American Academy of Otolaryngology—Head and Neck Surgery Foundation (AAO-HNSF) Guideline Development Panel

Composition of Group That Authored the Guideline

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USA; Helen W. Haskell, MA, Mothers Against Medical Error, Columbia, South Carolina, USA; Peter J. Robertson, MPA, American Academy of Otolaryngology—Head and Neck Surgery Foundation, Alexandria, Virginia, USA

Financial Disclosures/Conflicts of Interest

Financial Disclosure and Conflicts of Interest

The cost of updating this guideline, including travel expenses of all panel members, was covered in full by the American Academy of Otolaryngology—Head and Neck Surgery Foundation (AAO-HNSF). Potential conflicts of interest for all panel members were compiled and distributed before the first in-person meeting. After review and discussion of these disclosures, the panel concluded that individuals with potential conflicts could remain on the panel if they (1) reminded the panel of potential conflicts before any related discussion, (2) recused themselves from a related discussion if asked by the panel, and (3) agreed not to discuss any aspect of the guideline with industry before publication. Lastly, panelists were reminded that conflicts of interest extend beyond financial relationships and may include personal experiences, how a participant earns a living, and the participant's previously established "stake" in an issue.

Disclosures

Competing interests: Seth R. Schwartz, Cochlear Corporation, travel expenses to a symposium; Oticon Medical, travel expenses to a symposium. Peter S. Roland, Alcon, research funding, consultant; Lupin Pharmaceuticals, consultant. Kaparaboyna Ashok Kumar, consultant, Southeast Fetal Alcohol Spectrum Disorders Training Center, Meharry Medical College; faculty speaker, National Procedures Institute, Austin, Texas; Peter J. Robertson, salaried employee of AAO-HNSF.

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: Rosenfeld RM, Brown L, Cannon CR, Dolor RJ, Ganiats TG, Hannley M, Kokemueller P, Marcy SM, Roland PS, Shiffman RN, Stinnett SS, Witsell DL, American Academy of Otolaryngology--Head and Neck Surgery Foundation. Clinical practice guideline: acute otitis externa. Otolaryngol Head Neck Surg. 2006 Apr;134(4 Suppl):S4-23. [137 references]

This guideline meets NGC's 2013 (revised) inclusion criteria.

Guideline Availability

Electronic copies: Available from the American Academy of Otolaryngology—Head and Neck Surgery Foundation (AAO-HNSF) Web site .

Availability of Companion Documents

The following are available:

- Clinical practice guideline: acute otitis externa. Podcast Part 1 and 2. Alexandria (VA): American Academy of Otolaryngology—Head and Neck Surgery Foundation (AAO-HNSF). 2014 Jan. Available from the SAGE Journal Online Web site .
- Research gaps-acute otitis externa (AOE). Alexandria (VA): American Academy of Otolaryngology—Head and Neck Surgery Foundation (AAO-HNSF). 2014 Jan. Electronic copies: Available from the AAO-HNSF Web site .
- Clinical practice guideline: acute otitis externa. Fact sheet. Alexandria (VA): American Academy of Otolaryngology—Head and Neck Surgery Foundation (AAO-HNS). 2014 Jan. 2 p. Electronic copies: Available in Portable Document Format (PDF) from the AAO-HNSF Web site .
- Rosenfeld RM, Shiffman RN, Robertson P. Clinical practice guideline development manual, third edition: a quality-driven approach for translating evidence into action. Otolaryngol Head Neck Surg. 2013;148(Suppl 1):S1-55. Electronic copies: Available from the SAGE Journal Online Web site .

Patient Resources

The following are available:

- Plain language summary: acute otitis externa (swimmer's ear). Alexandria (VA): American Academy of Otolaryngology–Head and Neck Surgery Foundation (AAO-HNSF). 2014 Jan. 2 p. Electronic copies: Available from the American Academy of Otolaryngology—Head and Neck Surgery Foundation (AAO-HNSF) Web site .
- Patient information: frequently asked questions: topical therapy for acute otitis externa (swimmer's ear). Alexandria (VA): American Academy of Otolaryngology—Head and Neck Surgery Foundation (AAO-HNSF). 2014 Jan. 2 p. Electronic copies: Available from the AAO-HNSF Web site .
- Instructions for patients: acute otitis externa (swimmer's ear). Alexandria (VA): American Academy of Otolaryngology–Head and Neck Surgery Foundation (AAO-HNSF). 2014 Jan. 1 p. Electronic copies: Available from the AAO-HNSF Web site .

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